=> d his

(FILE 'HOME' ENTERED AT 14:00:48 ON 09 AUG 2001) FILE 'REGISTRY' ENTERED AT 14:00:52 ON 09 AUG 2001 STRUCTURE UPLOADED
13 S L1 L1L2 199 S L2 FULL L3 FILE 'CA' ENTERED AT 14:01:31 ON 09 AUG 2001 24 S L3 L413 S L4 AND PD < JULY 1999 L5 1 S L5 AND BJORSNE, M?/AU L6 12 S L5 NOT L6 L7 FILE 'CAOLD' ENTERED AT 14:03:24 ON 09 AUG 2001 L8 3 S L3

FILE 'REGISTRY' ENTERED AT 14:03:44 ON 09 AUG 2001 E 7038-02-0/RN USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2001 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 10 AUG 2001 HIGHEST RN 351153-64-5 DICTIONARY FILE UPDATES: 10 AUG 2001 HIGHEST RN 351153-64-5

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

=> e bispidine/cn

E1	1	BISPHOSPHOLO(1,2-A:2',1'-C)(1,4)DIPHOSPHORIN, TUNGSTEN								
DERIV		, , , , , , , , , , , , , , , , , , , ,								
		./CN								
E2	1	BISPIDIN/CN								
E3	1>	BISPIDINE/CN								
E4	1	BISPIDINEBENZAMIDE/CN								
E5	1	BISPIDINOL/CN								
E6	1	BISPRASIN/CN								
E7	1	BISPROMAZINE/CN								
E8	1	BISPROPARGYL SULFIDE/CN								
E9	1	BISPROPOXUR SULFIDE/CN								
E10	1	BISPROPYLIDENEANILINE/CN								
E11	1	BISPUUPEHENONE/CN								
E12	1									
BISPYRANO(2'',3'':5',6')PYRANO(2',3':5,6)PYRANO(3,2-B:2',3'-										
		F) OXEPIN/CN								

=> s e3

1 BISPIDINE/CN

=> d l1

```
ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
L1
```

RN 280-74-0 REGISTRY

CN 3,7-Diazabicyclo[3.3.1]nonane (6CI, 8CI, 9CI) (CA INDEX NAME) OTHER NAMES:

CN

Bispidin

CN Bispidine

FS 3D CONCORD

MF C7 H14 N2 CI COM, RPS

LCSTN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, GMELIN*, TOXLIT, USPATFULL

(*File contains numerically searchable property data)



- 16 REFERENCES IN FILE CA (1967 TO DATE)
 5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 17 REFERENCES IN FILE CAPLUS (1967 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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LOGINID:ssspta1612BXR

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 4 Feb 16 TOXLINE NO longer being updated NEWS 5 Apr 23 Search Derwent WPINDEX by chemical structure

NEWS 6 Apr 23 PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA

NEWS 7 May 07 DGENE Reload

NEWS 8 Jun 20 Published patent applications (A1) are now in USPATFULL

NEWS 9 JUL 13 New SDI alert frequency now available in Derwent's DWPI and DPCI

NEWS EXPRESS July 11 CURRENT WINDOWS VERSION IS V6.0b,
CURRENT MACINTOSH VERSION IS V5.0C (ENG) AND V5.0JB (JP),
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2001
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NEWS PHONE Direct Dial and Telecommunication Network Access to STN

NEWS WWW CAS World Wide Web Site (general information)

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=> file reg

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
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FILE 'REGISTRY' ENTERED AT 14:00:52 ON 09 AUG 2001

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STRUCTURE FILE UPDATES: 8 AUG 2001 HIGHEST RN 350791-61-6 DICTIONARY FILE UPDATES: 8 AUG 2001 HIGHEST RN 350791-61-6

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

Please note that search-term pricing does apply when conducting ${\tt SmartSELECT}$ searches.

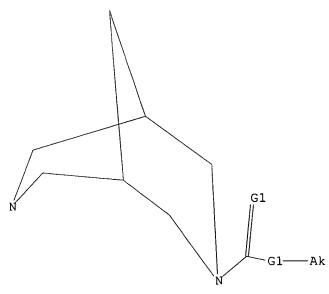
Structure search limits have been increased. See HELP SLIMIT for details.

=> Uploading 09623705.str

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS L1 STR



G1 0, S

Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 14:01:19 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 46 TO ITERATE

46 ITERATIONS 100.0% PROCESSED

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE** **COMPLETE** BATCH

PROJECTED ITERATIONS: 514 TO 1326 44 TO 476 PROJECTED ANSWERS:

L213 SEA SSS SAM L1

=> s 12 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 133.25 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y) /N or END: y

FULL SEARCH INITIATED 14:01:26 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 884 TO ITERATE

100.0% PROCESSED 884 ITERATIONS SEARCH TIME: 00.00.01

199 ANSWERS

13 ANSWERS

199 SEA SSS FUL L1

=> file ca

L3

SINCE FILE TOTAL COST IN U.S. DOLLARS SESSION ENTRY 133.56 133.71 FULL ESTIMATED COST

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FILE COVERS 1947 - 2 Aug 2001 VOL 135 ISS 7 FILE LAST UPDATED: 2 Aug 2001 (20010802/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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The CA file now provides online access to patents and literature covered in CA from 1947 to the present. On April 22, 2001, bibliographic information and abstracts were added for over 2.2 million references published in CA from 1947 to 1966.

The CA Lexicon is now available in the Controlled Term (/CT) field.

Enter HELP LEXICON for full details.

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=> s 13

24 L3 L4

=> s 14 and pd < july 1999

17796360 PD < JULY 1999 (PD<19990700)

13 L4 AND PD < JULY 1999 L5

=> s 15 and bjorsne, m?/au

4 BJORSNE, M?/AU

L6 1 L5 AND BJORSNE, M?/AU

=> d 16, ibib abs fhitstr, 1

ANSWER 1 OF 1 CA COPYRIGHT 2001 ACS

ACCESSION NUMBER:

131:58860 CA

TITLE:

Preparation of 3,7-diazabicyclo[3.3.1]nonane-3-

carboxylates as antiarrhythmic agents

INVENTOR(S):

Strandlund, Gert; Alstermark, Christer; Bjore,

Annika;

Bjorsne, Magnus; Frantsi, Marianne;

Halvarsson, Torbjorn; Hoffmann, Kurt-Jurgen;

Lindstedt, Eva-Lotte; Polla, Magnus

PATENT ASSIGNEE(S): SOURCE:

Astra Aktiebolag, Swed. PCT Int. Appl., 129 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT NO. KIND				1D	DATE			Al	PPLI	DATE							
WO 9931100			A1 19990624				W	199	98-SI	5	1998	1210	<				
W: A	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,	
I	DK,	ΕĒ,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	
I	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	
ı	MW, I	MX,	NO,	NZ,	PL,	FΤ,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	
	TR,	TT,	UA,	UG,	US,	UZ,	VN,	YU,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	
	TJ,	MT															
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]	FI,	FR,	GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	
(CM,	GΑ,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG							
ZA 9811130 A					1999	0617		ZA 1998-11130					1998	<			

19981210 AU 9917953 Α1 19990705 AU 1999-17953 BR 1998-13668 19981210 20001017 BR 9813668 Α 19981210 EP 1998-962796 20001102 EP 1047695 Α1 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO 20000817 NO 2000-3137 20000616 NO 2000003137 Α PRIORITY APPLN. INFO.: SE 1997-4709 A 19971217 WO 1998-SE2276 W 19981210 MARPAT 131:58860 OTHER SOURCE(S):

GI

Ι

AB Title compds. [I; R1, R2 = H or alkyl; R1R2 = OCH2CH2O, (CH2)4-5; R3 = CCR10R11AR; A = bond, alkylene, (CH2)nZ, CONR2O, etc.; B = bond, alkylene,

NR23(CH2)r, O(CH2)r; R = (un)substituted Ph; R4 = COXR9; R9 = alkyl, (un)substituted phenyl(alkyl), -naphthyl; R10 = H or OH; R11,R20,R23 = H or alkyl; X = O or S; Z = NR20, SO0-2, O; n,r = 0-4] were prepd. Thus, 4-(NC)C6H4OH was condensed with epichlorohydrin and the product aminated by I (R1 = R2 = H, R4 = CO2CMe3)(II; R3 = H)(prepn. given) to give II [R3 = CH2CH(OH)CH2OC6H4(CN)-4]. Data for biol. activity of I were given.

IT 227939-98-2P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 3,7-diazabicyclo[3.3.1]nonane-3-carboxylates as antiarrhythmic agents)

RN 227939-98-2 CA

CN 3,7-Diazabicyclo[3.3.1]nonane-3-carboxylic acid, 7-[3-(4-cyanophenoxy)-2-hydroxypropyl]-, ethyl ester (9CI) (CA INDEX NAME)

REFERENCE COUNT: REFERENCE(S):

(1) Basf Aktiengesellschaft; EP 0308843 A2 1989 CA

(2) Kall-Chemie Pharma Gmbh; EP 0306871 A2 1989 CA

(3) The Board Of Regents Of Oklahoma State

University;

WO 9107405 A1 1991 CA

=> d his

(FILE 'HOME' ENTERED AT 14:00:48 ON 09 AUG 2001)

FILE 'REGISTRY' ENTERED AT 14:00:52 ON 09 AUG 2001

L1 STRUCTURE UPLOADED

L2 13 S L1

L3 199 S L2 FULL

FILE 'CA' ENTERED AT 14:01:31 ON 09 AUG 2001

L4 24 S L3

L5 13 S L4 AND PD < JULY 1999 L6 1 S L5 AND BJORSNE, M?/AU

=> s 15 not 16

L7 12 L5 NOT L6

 \Rightarrow d 17, ibib abs fhitstr, 1-12

L7 ANSWER 1 OF 12 CA COPYRIGHT 2001 ACS

ACCESSION NUMBER:

132:12427 CA

TITLE:

An efficient chemoenzymatic access to chiral

3,7-diazabicyclo[3.3.1]nonane derivatives

AUTHOR(S): Danieli, Bruno; Lesma, Giordano; Passarella, Daniele;

Silvani, Alessandra; Viviani, Nunzia

CORPORATE SOURCE:

Dipartimento di Chimica Organica e Industriale, Universita degli Studi di Milano, Centro CNR di

Studio

per le Sostanze Organiche Naturali, Milan, 21-20133,

Italy

SOURCE:

PUBLISHER: DOCUMENT TYPE:

LANGUAGE:

Tetrahedron (1999), 55(40), 11871-11878

CODEN: TETRAB; ISSN: 0040-4020

Elsevier Science Ltd.

Journal

English

GI

Enantiopure 3,7-diazabicyclo[3.3.1] nonane derivs. I and II, potential AΒ precursors of quinolizidine alkaloids, were synthesized in high yields, starting from the biocatalytic asymmetrization of .sigma.-sym. 3,5-disubstituted piperidines. Their application to the total synthesis of the new pharmacol. active compds. are also described.

251346-88-0P TΤ

RL: BPN (Biosynthetic preparation); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (chemoenzymic access to chiral 3,7-diazabicyclo[3.3.1]nonane derivs.)

RN 251346-88-0 CA

3,7-Diazabicyclo[3.3.1]nonane-3-carboxylic acid, 6-hydroxy-, phenylmethyl CN ester, (1S,5S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

REFERENCE(S):

1.7

- (3) Danieli, B; J Org Chem 1998, V63, P3492 CA (4) Danieli, B; Tetrahedron 1994, V50, P8837 CA
- (5) Danieli, B; Tetrahedron: Asymm 1996, V7, P345 CA
- (6) Dess, D; J Am Chem Soc 1991, V113, P7277 CA
- (7) Fazylov, S; Zh Obshch Khim 1995, V65, P877 CA

ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 12 CA

ACCESSION NUMBER:

TITLE:

COPYRIGHT 2001 ACS

128:180115 CA

Stereochemistry of N-acetyl-r-2,c-4-diphenyl-3-

azabicyclo[3.3.1] nonanes and

N-ethoxycarbonyl-r-2,c-4-

diphenyl-3-azabicyclo[3.3.1]nonane

AUTHOR(S):

Jeyaraman, R.; Ponnuswamy, S.

CORPORATE SOURCE:

Department of Chemistry, Bharathidasan University,

Tiruchirapalli, 620 024, India

SOURCE:

Indian J. Chem., Sect. B: Org. Chem. Incl. Med. Chem.

(**1997**), 36B(9), 730-737

CODEN: IJSBDB; ISSN: 0376-4699

PUBLISHER:

National Institute of Science Communication, CSIR

DOCUMENT TYPE:

Journal English

LANGUAGE:

GI

AB The conformational preferences of N-acetyl-r-2,c-4-diphenyl-3-azabicyclo[3.3.1] nonane I and N-ethoxycarbonyl-and

N-acetyl-r-2,c-4,t-6,t-8-tetraphenyl-3,7-diazabicyclo[3.3.1] nonanes II (R= CO2Et,COMe) have

been

studied using NMR spectral techniques. The azabicyclo[3.3.1]nonane I is found to prefer a twin-chair conformation with a slight flattening at the nitrogen end. In the case of diazabicycles II both the

ethoxycarbonylation and acetylation reactions are found to take place only

at the boat end of the parent amine and the preferred conformation of the products is found to be twin-chair with flattening at C1-C2-N3-C4-C5 part of the ring in both cases. The energy barrier for the N-CO rotation in N-ethoxycarbonyl deriv. 6 has been detd. from the dynamic 1H NMR studies and the barrier for N-CO rotation is found to be 50.8 kJ mol-1, much

less

than that of N-nitroso analogs.

IT **203190-52-7P**, N-(Ethoxycarbonyl)-r-2,c-4-diphenyl-3-azabicyclo[3.3.1]nonane

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

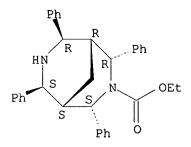
SPN

(Synthetic preparation); PREP (Preparation); PROC (Process) (dynamic NMR conformational anal. of ethoxycarbonyl-and acetyltetraphenyldiazabicyclononanes)

RN 203190-52-7 CA

CN 3,7-Diazabicyclo[3.3.1]nonane-3-carboxylic acid, 2,4,6,8-tetraphenyl-, ethyl ester, (2R,4S,6S,8R)-rel-[partial]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L7 ANSWER 3 OF 12 CA COPYRIGHT 2001 ACS ACCESSION NUMBER: 126:8107 CA

TITLE:

Preparation of diazabicyclo(3.3.1) nonane derivatives

for the treatment of Alzheimer's disease and cerebral

function disorders

Kobayashi, Koji; Orita, Kazuhiro; Hamada, Atsushi; INVENTOR(S):

Inaba, Takashi; Abe, Hiroyuki; Miyazaki, Susumu

PATENT ASSIGNEE(S): Japan Tobacco Inc., Japan SOURCE: PCT Int. Appl., 128 pp.

CODEN: PIXXD2

Patent

DOCUMENT TYPE:

LANGUAGE:

Japanese FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.			KIND DATE					A	PPLI	CATI	ои ис	ο.	DATE					
									-					~				
WO		9630372		A1		19961003							19960321					
	W:	AL,	ΑU,	BB,	ВG,	BR,	CA,	CN,	CZ,	EE,	GE,	HU,	IS,	KR,	LK,	LR,	LT,	
		LV,	MG,	MK,	MN,	MX,	NO,	NΖ,	PL,	RO,	SG,	SI,	SK,	TR,	TT,	UA,	US,	
						BY,												
	RW:					SZ,												
		ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	ML,	
		MR,	ΝE,	SN,	TD,	ΤG												
AU 9650143				A1 19961016					A	U 19	96-50	0143	19960321			<		
JP 08325267 A2						19961210			JP 1996-66858				19960322			<		
PRIORITY APPLN. INFO.: JP 1995-66497 19950324								0324										
								1	WO 1	996-	JP742	2		19960	0321			

OTHER SOURCE(S):

MARPAT 126:8107

for

ΙT

The title compds. I [R represents CONH(CHR1)mR2, etc.; R1 represents AB hydrogen or alkyl; m is 0, 1 or 2; and R2 represents optionally substituted aryl, optionally substituted heterocycle, optionally substituted cycloalkyl, alkyl or alkenyl] are prepd. I have nicotinic cholinergic effect and dopamine-releasing effect. In an in vitro test

affinity for the nicotinic acetylcholine receptors, the title compd. II fumaric acid salt showed IC50 of 57 nM, vs. 25 nM for nicotine.

183277-39-6P RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of diazabicyclononane derivs. for treatment of Alzheimer's disease and cerebral function disorders)

RN 183277-39-6 CA

CN 3,7-Diazabicyclo[3.3.1]nonane-3-carboxylic acid, 2-oxo-, phenylmethyl ester, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM

CRN 183277-38-5 C15 H18 N2 O3

2 CM

110-17-8 CRN CMF C4 H4 O4 CDES 2:E

Double bond geometry as shown.

COPYRIGHT 2001 ACS ANSWER 4 OF 12 CA

ACCESSION NUMBER:

123:111879 CA

TITLE:

Synthesis and biological activity of the metabolites of syn-3-ethyl-7-methyl-3,7-diazabicyclo[3.3.1]non-9-

yl 4-chlorobenzoate hydrochloride

AUTHOR(S): Yamawaki, Ichiro; Bukovac, Scott W.; Sunami, Akihiko CORPORATE SOURCE: Tokushima Res. Cent., Pharmacokinetics Res. Lab. and

Pharmacol. Res. Lab., Tokushima, 771-01, Japan

SOURCE:

Chem. Pharm. Bull. (1994), 42(11), 2365-9

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 123:111879

Five metabolites of syn-3-ethyl-7-methyl-3,7-diazabicyclo[3.3.1]hon-9-yl 4-chlorobenzoate hydrochloride (YUTAC) were prepd. and examd. for Na+ current blocking activity in guinea pig ventricular myocytes. These metabolites showed lower inhibitory activities than the parent compd. or were inactive.

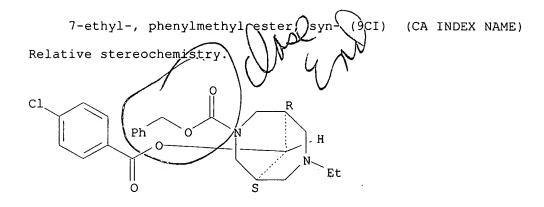
IT 166272-89-5P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (synthesis and Na+ current blocking activity of the metabolites of Yutac)

166272-89-5 CA RN

3,7-Diazabicyclo[3.3.1]nonane-3-carboxylic acid,

9-[(4-chlorobenzoyl)oxy]-



ANSWER 5 OF 12 CA COPYRIGHT 2001 ACS

ACCESSION NUMBER:

112:54544 CA

TITLE:

Conformations of derivatives of 3,7-

diazabicyclo[3.3.1]nonan-9-one. Comparison of 3-ethoxycarbonyl-7-methyl-1,5-diphenyl-3,7-

diazabicyclo[3.3.1]nonan-9-one and

3,7-bis(ethoxycarbonyl)-1,5-diphenyl-3,7diazabicyclo[3.3.1]nonan-9-one: effect of a nucleophile.cntdot..cntdot.electrophile

interaction on molecular geometry

AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

McCabe, Peter H.; Milne, Neal J.; Sim, George A. Chem. Dep., Univ. Glasgow, Glasgow, G12 8QQ, UK

J. Chem. Soc., Perkin Trans. 2 (1989), (7),

831 - 4

CODEN: JCPKBH; ISSN: 0300-9580

DOCUMENT TYPE:

LANGUAGE:

that

Journal English

X-ray analyses of 3-ethoxycarbonyl-7-methyl-1,5-diphenyl-3,7-

diazabicyclo[3.3.1]nonan-9-one (I) and 3,7-bis(ethoxycarbonyl)-1,5diphenyl-3,7-diazabicyclo[3.3.1]nonan-9-one (II) have established that both mols. adopt twin-chair conformations. In II, the urethane N atoms have the expected nearly coplanar arrangement of bonds, whereas in I, the urethane N atom has a distinctly pyramidal pattern of bonds; the N-CO2Et bond in I is bent out of the CH2-N-CH2 plane towards the NMe group so

the N...C sepn. between the NMe and CO2Et groups is 2.665 .ANG. whereas the corresponding distances in II are 3.363 and 3.150 .ANG.. The results demonstrate the existence of an attractive nucleophile-electrophile interaction in I.

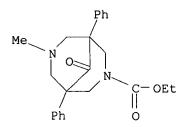
IT 7037-98-1

RL: PRP (Properties)

(crystal structure and conformation of)

RN 7037-98-1 CA

CN 3,7-Diazabicyclo[3.3.1]nonane-3-carboxylic acid, 7-methyl-9-oxo-1,5diphenyl-, ethyl ester (7CI, 8CI, 9CI) (CA INDEX NAME)



ANSWER 6 OF 12 CA COPYRIGHT 2001 ACS

ACCESSION NUMBER: 103:123460 CA

TITLE: Conformational control in the 3,7-

diazabicyclo[3.3.1]nonane system

AUTHOR(S): McCabe, P. H.; Milne, N. J.; Sim, G. A.

CORPORATE SOURCE: Chem. Dep., Univ. Glasgow, Glasgow, G12 8QQ, UK

SOURCE: J. Chem. Soc., Chem. Commun. (1985), (10),

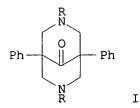
625-6

CODEN: JCCCAT; ISSN: 0022-4936

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 103:123460

GΙ



AB Twin-chair or boat-chair conformations of the title system can be selected

by forming N,N'-derivs. in which the N atoms have planar or pyramidal bonding patterns, resp. Thus, crystal structure anal. of the diazabicyclononane derivs. I (R = NO, CO2Et, COCF3) showed mols. with essentially planar bonding patterns at N and with twin-chair conformation,

whereas a similar study of I (R = SO2C6H4Me-4, Me) showed mols. with boat-chair conformations and a distinctly pyramidal arrangement of bonds at N.

IT 13638-71-6P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn., crystal and mol. structure, and conformation of, substituent effect on)

RN 13638-71-6 CA

CN 3,7-Diazabicyclo[3.3.1]nonane-3,7-dicarboxylic acid, 9-oxo-1,5-diphenyl-, diethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)

ANSWER 7 OF 12 CA COPYRIGHT 2001 ACS

ACCESSION NUMBER: 100:156576 CA

Synthesis and transformations of polyhedral TITLE: compounds.

VII. Ring opening of azaadamantanes by mixed

anhydrides Agadzhanyan, Ts. E.; Arutyunyan, G. L.; Minasyan, G. AUTHOR(S):

G.; Movsesyan, R. A. CORPORATE SOURCE: Inst. Tonkoi Org. Khim. im. Mndzhoyana, Yerevan, USSR

Arm. Khim. Zh. (1983), 36(10), 669-72 SOURCE:

CODEN: AYKZAN; ISSN: 0515-9628

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI

Diazaadamantanes I (R = NO2, X = Me2) was treated with R1CO2CO2Me (R1 = AB PhCH2O2CNHCH2, BzNHCH2) to give diazabicyclononanes II (R2 = CO2Me). Analogously, urotropine and BzOCO2Me gave 40% tetraazabicyclononane III. Treating I (R = Ph, X = O) with HCO2OAc gave 42% II (R = Ph, R1 = H, R2 = CHO). Addnl. obtained from triazaadamantane IV were triazabicyclononanes V (R3 = CHO, Ac).

ΙT 89250-89-5P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)
RN 89250-89-5 CA
CN 3,7-Diazabicyclo[3.3.1]nonane-3-carboxylic acid,
9,9-dimethyl-1,5-dinitro 7-[[(phenylmethoxy)carbonyl]amino]acetyl]-, methyl ester (9CI) (CA INDEX NAME)

L7 ANSWER 8 OF 12 CA COPYRIGHT 2001 ACS

ACCESSION NUMBER:

99:194908 CA

TITLE:

Synthesis and stereochemistry of the heteroanalogs of

bicyclononane and adamantane. Ethynylation of

1,5-diphenyl-3,7-diacyl-3,7-diazabicyclo[3.3.1] nonanes

AUTHOR(S):

Gubasheva, A. Sh.; Omarov, T. T.

CORPORATE SOURCE:

Inst. Khim. Nauk, Alma-Ata, USSR
Deposited Doc. (1982), VINITI 3358-82, 9 pp.

Avail.: VINITI

DOCUMENT TYPE:

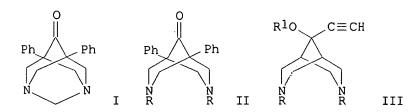
Report

LANGUAGE:

SOURCE:

Russian

GΙ



- AB Acylation of I by RCOCl (R = Ac, Bz, CO2Me, CO2Et) gave diacyl derivs. II which underwent addn. with HC.tplbond.CH to give III (R1 = H).
- Esterification of the latter gave III (R1 = Ac, Bz, CO2Me, CO2Et).

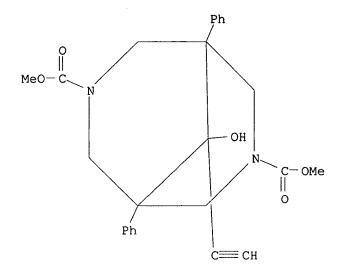
IT 87703-23-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and esterification of)

RN 87703-23-9 CA

CN 3,7-Diazabicyclo[3.3.1]nonane-3,7-dicarboxylic acid, 9-ethynyl-9-hydroxy-

1,5-diphenyl-, dimethyl ester (9CI) (CA INDEX NAME)



L7 ANSWER 9 OF 12 CA COPYRIGHT 2001 ACS

ACCESSION NUMBER:

96:104172 CA

TITLE:

Synthesis and reactions of polyhedral compounds. II.

Synthesis of 5,7-dimethyl-1,3-diazaadamantan-6-one

and

-6-ol and their conversion into 3,7-

diacyl(dicarbalkoxy, diarylsulfonyl)-3,7-

diazabicyclo[3,3,1]nonanes

AUTHOR(S):

Agadzhanyan, Ts. E.; Arutyunyan, G. L.

CORPORATE SOURCE:

Agadznanyan, Ts. E.; Arutyunyan, G. L. Inst. Tonkoi Org. Khim. im. Mndzhoyana, Yerevan, USSR

SOURCE:

Arm. Khim. Zh. (1981), 34(11), 963-8

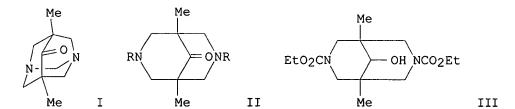
CODEN: AYKZAN; ISSN: 0515-9628

DOCUMENT TYPE:

LANGUAGE:

Journal Russian

GI



AB Cyclocondensation of EtCOEt, HCHO, and AcONH4 gave 19.5% I, which reacted with RCOC1, RO2CC1, or ArSO2C1 to give II [R = BrCH2CO, BrCH2CH2CO, CH2:CHCO, Bz, (phthalimidomethoxy)carbonyl, EtOCO, PhCH2OCO, 4-MeC6H4SO2, 4-(MeO2CNH)C6H4SO2]. LiAlH4 redn. of I gave 83.3% alc., which with ClCO2Et gave III.

ΙT 80808-91-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

RN 80808-91-9 CA

CN 3,7-Diazabicyclo[3.3.1]nonane-3,7-dicarboxylic acid, 1,5-dimethyl-9-oxo-,

bis[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)methyl] ester (9CI) (CA

INDEX

NAME)

ANSWER 10 OF 12 CA COPYRIGHT 2001 ACS

ACCESSION NUMBER:

95:132841 CA

TITLE:

Synthetic conversions in a series of

bicyclo[3.3.1] nonane and adamantane diaza analogs

AUTHOR(S):

Gubasheva, A. Sh.

CORPORATE SOURCE:

USSR

SOURCE:

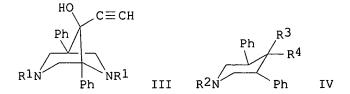
Vestn. Akad. Nauk Kaz. SSR (1981), (4), 66-7

CODEN: VANKAM; ISSN: 0002-3213

DOCUMENT TYPE:

Journal LANGUAGE: Russian

GI



AΒ Diazaadamantanone I underwent ring cleavage by treatment with Ac2O and C1CO2R (R = Me, Et) to give diazabicylononanes II (R1 = CO2Me, CO2Et),

II

which were hydrolyzed to give II (R1 = H). Favorskii ethynylation of II (R1 = H, Me, Ac, PhCH2, Pr) gave the corresponding ethynyldiazabicyclononanols III. Piperidinones IV (R2 = Me, Pr; R3R4 = Me, Pr; R3R4)

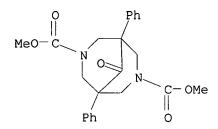
O)

underwent Favorskii ethynylation and Grignard reaction with HC.tplbond.CMgBr gave epimeric piperidinols IV (R3, R4 = H0, HC.tplbond.C).

IT 15507-63-8P

RN 15507-63-8 CA

CN 3,7-Diazabicyclo[3.3.1]nonane-3,7-dicarboxylic acid, 9-oxo-1,5-diphenyl-, dimethyl ester (8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 11 OF 12 CA COPYRIGHT 2001 ACS

ACCESSION NUMBER:

92:163871 CA

TITLE:

Relationship between basicity and molecular structure in polycyclic nitrogen compounds. II. Synthesis of

the stereoisomeric monomethiodides of

3,7-dimethyl-1,5-diphenyl-9-bispidinol and of

1,3-diaza-5,7-diphenyl-6-adamantanol: influence of

the hydroxy group on basicity

AUTHOR(S):

Settimi, Guido; Del Giudice, Maria Rosaria; Di

Simone,

Luciano

CORPORATE SOURCE:

Lab. Chim. Farm., Ist. Super. Sanita, Rome, 00161,

Italv

SOURCE:

Gazz. Chim. Ital. (1979), 109(6-7), 345-9

CODEN: GCITA9; ISSN: 0016-5603

DOCUMENT TYPE:

Journal Fnglish

LANGUAGE:

English

AB The stereoisomeric monomethiodides of 3,7-dimethyl-1,5-diphenyl-9-bispidinol were prepd. from N-ethoxycarbonyl-N'-methyl-1,5-diphenyl-9-bispidinone through a 7-step synthesis and possess the expected difference

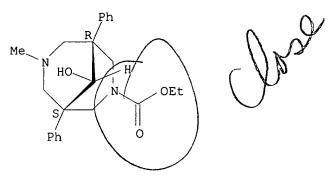
of behavior to protonation. This difference of basicity is attributed to an intramol. interaction between the hydroxy group and the syn amino function, which is possible in only one of the two stereoisomers. The NMR, IR and pKa data of the intermediate asym. substituted derivs. of 9-bispidinol, belonging to the two stereoisomeric series, support the existence of such an intramol. interaction.

IT 73310-77-7P

RN 73310-77-7 CA

CN 3,7-Diazabicyclo[3.3.1]nonane-3-carboxylic acid, 9-hydroxy-7-methyl-1,5diphenyl-, ethyl ester, anti- (9CI) (CA INDEX NAME)

Relative stereochemistry.



ANSWER 12 OF 12 CA COPYRIGHT 2001 ACS

ACCESSION NUMBER: 66:85777 CA

TITLE: Reactivity of 3,7-diazadamantanes. Synthesis of

1,5-diphenyl-3,7-diaza-10-thioadamantan-9-one

10-oxide

and 10,-10-dioxide

Misiti, Domenico; Chiavarelli, Stefano AUTHOR(S):

CORPORATE SOURCE:

Ist. Super. Sanita, Rome, Italy
Gazz. Med. Ital. (1966), 96(12), 1696-714 SOURCE:

CODEN: GMITAB

DOCUMENT TYPE: Journal LANGUAGE: Italian

For diagram(s), see printed CA Issue. GT

(Tos = p-MeC6H4SO2Cl throughout this abstr.) To a cooled soln. of 3 g. I (X = CH2) (II) in 10 ml. anhyd. C5H5N, 1 ml. SO2Cl2 was added under AΒ

stirring, the mixt. heated 0.5 hrs. at 40-50.degree., poured into H2O, the

solid sepd. (3.5 g.) chromatographed on silica gel eluting with CHCl3, gave 1.4 g. I (X = SO2) (III), m. 246-7.degree. Similarly, 3 g. II with 0.9 ml. SOC12 in 10 ml. C5H5N kept 12 hrs. at room temp., then heated 0.5 hrs. at 40-50.degree., gave 0.62 g. I (X = SO) (IV), m. 183-4.degree.. The structures of III and IV were assigned on the basis of NMR spectra. Oxidn. of IV with Ca(MnO4)2 in 1:1 CHCl3-AcOH at -10.degree. gave III quant. II (0.02 mole) in 20 ml. C5H5N treated with 0.031 mole COC12 in PhMe and the mixt. heated 7 hrs. at 80.degree. gave, instead of the expected I (X = CO), 1.45 g. of V (R = R' = COC1), m. 282-4.degree. (decompn.) (CHCl3-hexane). The same reaction, carried out in the absence of C5H5N gave V (R = COCl, R'=H) as HCl salt (not isolated), which dissolved in hot MeOH, the soln. treated with 0.1N NaOH and the sepd. solid chromatographed on silica gel eluting with CHCl3, led to V (R = CO2Me, R' = H) (VI), m. 133-5.degree.. Similarly, V (R = CO2Et, R' = H) (VII), m. 125-7.degree., was prepd. To confirm the structure, the known

(R = R' = CO2Et) (Chiavarelli and Settimj, CA 53, 22008a) was transformed by hydrolysis into a mixt. of VII and V (R = R' = H). Attempts to obtain I(X = CO) by heating VI, VII: a) 5 hrs. at 130.degree. without solvent, b) 10 hrs. in refluxing xylene, c) 5 hrs. in refluxing xylene and in the

presence of MeONa, failed. Equimol. amts. of II (6.08 g.) and TosCl in C5H5N kept overnight at room temp., then heated 5 hrs. at 50-60.degree. and the reaction products chromatographed by the usual procedure, gave

1.2

g. V (R = R' = Tos), m. 246-7.degree., and 0.54 g. V (R = Tos, R' = H),

m.

169-70.degree.. Finally, II with ClCO2Me (molar ratio 1:0.5) in dioxane, refluxed 3 hrs., the pH of the mixt. adjusted to 8, the unreacted II filtered off after long standing of the mixt. at 0.degree., the filtrate evapd. and the residue chromatographed, gave in order the following V [R, R', and m.p. (CHCl3-hexane) given]: CO2Me, Me, 172-4.degree.; CO2Me, CO2Me, 192-4.degree.; CO2Me, CHO, 205-7.degree., VI. Similarly, equimol. amts. of II and ClCO2Et in CHCl3, refluxed 1 hr. and the reaction products

chromatographed, gave in order the following V [R, R', and m.p. (EtOH) given]: CO2Et, Me, 151-2.degree.; CO2Et, CO2Et, 172-3.degree.; VII. The behavior of II with ClCO2R was discussed on the light of their cleavage products.

IT 7037-98-1P

RN 7037-98-1 CA

CN 3,7-Diazabicyclo[3.3.1]nonane-3-carboxylic acid, 7-methyl-9-oxo-1,5-diphenyl-, ethyl ester (7CI, 8CI, 9CI) (CA INDEX NAME)

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AN
     CA65:8914b CAOLD
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     reactions with chloroacetaldehyde and 2,4-dichlorocrotonaldehyde
ΑU
     Kopp, Erwin; Smidt, J.
IΤ
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     synthesis of 1,5-diphenylbispidin-9-ones and-9-ols - (XI) synthesis of
ΤI
     unsym. 1,5-diphenyl-3,7-dialkylbispidin-9-ones
     Settimj, Guido; Landi-Vittory, R.; Gatta, F.; Sarti, N.; Chiavarelli, S. 4208-18-8 4208-19-9 4398-13-4 4398-15-6 7037-92-5 7037-93-6
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7038-00-8***

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AN
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     1,5-diphenyl-9-bispidinones and 1,5-diphenyl-9-bispidinols - (II)
relation
    between 1,5-diphenyl-9-bispidinone and -9-bispidinol and
     1,5-diphenyl-3,7-diazaadamantan-9-one and -9-ol, (III)
     3,7-dialkyl-1,5-diaryl-9-bispidinones and -9-bispidinols, (IV)
     3,7-bis(aminoalkyl) - and (aminoacyl)-bispidones and bispidols
ΑU
    Chiavarelli, Stefano; Settimj, G.
               4208-31-5
                             4208-32-6
                                          ***13638-71-6 19066-35-4
ΙT
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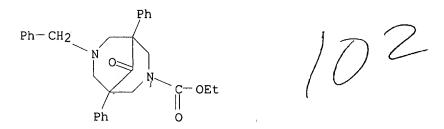
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     diphenyl-, ethyl ester (7CI, 8CI) (CA INDEX NAME)
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CN
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CN
     NAME)
OTHER CA INDEX NAMES:
     1,3-Diazaadamantan-6-ol, 5,7-diphenyl- (6CI, 7CI, 8CI)
CN
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     3D CONCORD
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     C20 H22 N2 O
CI
     COM
     STN Files:
                  BEILSTEIN*, CA, CAOLD, CAPLUS, RTECS*, TOXLIT
LC
```

(*File contains numerically searchable property data)

```
Ph
HO
Ph
N
```

```
8 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              15 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
=> e 4208-31-5/rn
                   4208-27-9/RN
E1
             1
E2
                   4208-30-4/RN
             1
E3
             1 --> 4208-31-5/RN
E4
                   4208-32-6/RN
             1
E5
                    4208-33-7/RN
             1
Ε6
             1
                   4208-34-8/RN
E7
                   4208-35-9/RN
             1
             1
                   4208-40-6/RN
E8
Ε9
             1
                   4208-41-7/RN
E10
             1
                   4208-42-8/RN
E11
                   4208-45-1/RN
             1
E12
                   4208-46-2/RN
=> s e3
L13
             1 4208-31-5/RN
=> d 113
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
L13
     4208-31-5 REGISTRY
RN
CN
     3,7-Diazabicyclo[3.3.1]nonan-9-one, 1,5-diphenyl-3,7-bis(phenylmethyl)-
     (9CI)
           (CA INDEX NAME)
OTHER CA INDEX NAMES:
     3,7-Diazabicyclo[3.3.1]nonan-9-one, 3,7-dibenzyl-1,5-diphenyl- (6CI, 7CI,
     8CI)
FS
     3D CONCORD
MF
     C33 H32 N2 O
LC
     STN Files:
                  BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS
         (*File contains numerically searchable property data)
```

8 REFERENCES IN FILE CA (1967 TO DATE)

```
Ph-CH2
                    CH2-Ph
               8 REFERENCES IN FILE CA (1967 TO DATE)
               8 REFERENCES IN FILE CAPLUS (1967 TO DATE)
               2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
=> e 4208-32-6/rn
E1
                   4208-30-4/RN
             1
E2
                   4208-31-5/RN
             1
E3
             1 --> 4208-32-6/RN
E4
                   4208-33-7/RN
             1
                   4208-34-8/RN
E5
             1
                   4208-35-9/RN
E6
             1
                   4208-40-6/RN
E7
             1
                   4208-41-7/RN
E8
             1
E9
             1
                   4208-42-8/RN
E10
             1
                   4208-45-1/RN
E11
             1
                   4208-46-2/RN
                   4208-47-3/RN
E12
=> s e3
L14
             1 4208-32-6/RN
=> d 114
L14
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
RN
     4208-32-6 REGISTRY
     3,7-Diazabicyclo[3.3.1]nonan-9-one, 3,7-dicyclohexyl-1,5-diphenyl- (6CI,
CN
     7CI, 8CI) (CA INDEX NAME)
FS
     3D CONCORD
MF
     C31 H40 N2 O
LC
     STN Files:
                  BEILSTEIN*, CAOLD, CHEMCATS
         (*File contains numerically searchable property data)
```

2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

```
=> e 13638-71-6/rn
E1
             1
                   13638-68-1/RN
E2
             1
                   13638-69-2/RN
             1 --> 13638-71-6/RN
E3
                   13638-72-7/RN
E4
E5
             1
                   13638-73-8/RN
E6
                   13638-74-9/RN
E7
                   13638-75-0/RN
E8
                   13638-76-1/RN
E9
             1
                   13638-77-2/RN
E10
                   13638-78-3/RN
             1
E11
             1
                   13638-79-4/RN
E12
                   13638-80-7/RN
=> s e3
L15
             1 13638-71-6/RN
=> d 115
```

L15 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS

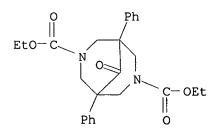
13638-71-6 REGISTRY RN

CN 3,7-Diazabicyclo[3.3.1]nonane-3,7-dicarboxylic acid, 9-oxo-1,5-diphenyl-, diethyl ester (6CI, 8CI, 9CI) (CA INDEX NAME)

FS 3D CONCORD

MFC25 H28 N2 O5

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT (*File contains numerically searchable property data)



5 REFERENCES IN FILE CA (1967 TO DATE)

5 REFERENCES IN FILE CAPLUS (1967 TO DATE)

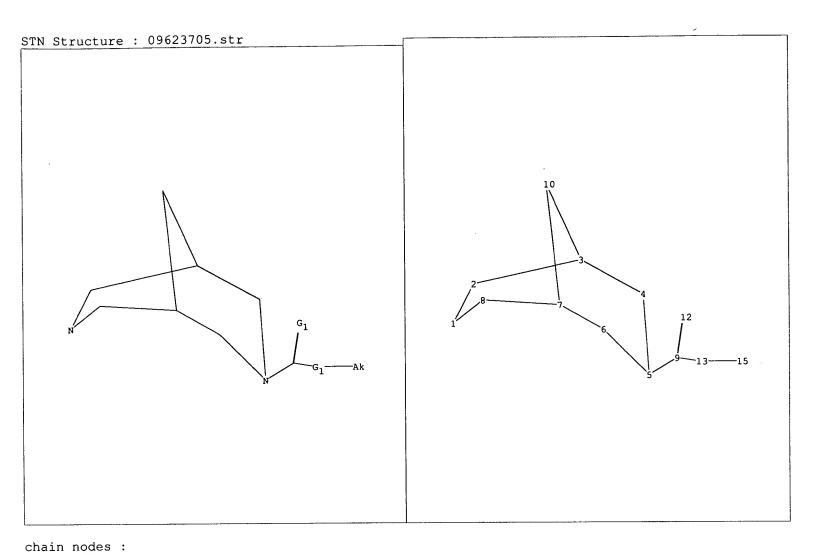
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d his

(FILE 'HOME' ENTERED AT 14:00:48 ON 09 AUG 2001)

FILE 'REGISTRY' ENTERED AT 14:00:52 ON 09 AUG 2001

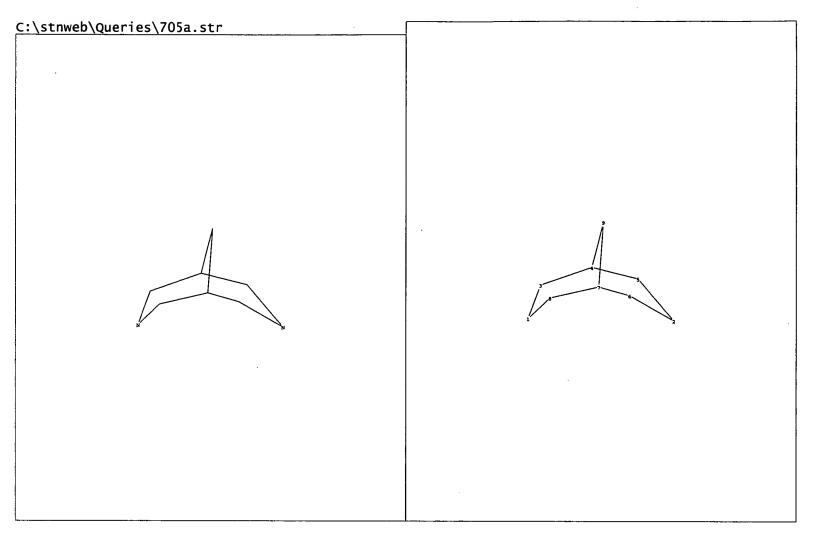
```
L1
                STRUCTURE UPLOADED
L2
            13 S L1
L3
            199 S L2 FULL
     FILE 'CA' ENTERED AT 14:01:31 ON 09 AUG 2001
L4
             24 S L3
             13 S L4 AND PD < JULY 1999
L5
             1 S L5 AND BJORSNE, M?/AU
L6
             12 S L5 NOT L6
L7
     FILE 'CAOLD' ENTERED AT 14:03:24 ON 09 AUG 2001
              3 S L3
L8
     FILE 'REGISTRY' ENTERED AT 14:03:44 ON 09 AUG 2001
                E 7038-02-0/RN
L9
              1 S E3
                E 7038-01-9/RN
L10
              1 S E3
                E 7038-02-0/RN
              1 S E3
L11
                E 3576-75-8/RN
              1 S E3
L12
                E 4208-31-5/RN
              1 S E3
L13
                E 4208-32-6/RN
              1 S E3
L14
               E 13638-71-6/RN
L15
              1 S E3
---Logging off of STN---
Executing the logoff script...
=> LOG Y
COST IN U.S. DOLLARS
                                                 SINCE FILE
                                                                  TOTAL
                                                       ENTRY
                                                                SESSION
FULL ESTIMATED COST
                                                       12.05
                                                                 203.45
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
                                                 SINCE FILE
                                                                  TOTAL
                                                       ENTRY
                                                                SESSION
CA SUBSCRIBER PRICE
                                                        0.00
                                                                  -7.28
STN INTERNATIONAL LOGOFF AT 14:06:50 ON 09 AUG 2001
```



```
9 12 13 15
ring nodes:
1 2 3 4 5 6 7 8 10
chain bonds:
5-9 9-12 9-13 13-15
ring bonds:
1-2 1-8 2-3 3-4 3-10 4-5 5-6 6-7 7-8 7-10
exact/norm bonds:
1-2 1-8 2-3 3-4 3-10 4-5 5-6 5-9 6-7 7-8 7-10 9-12 9-13 13-15
isolated ring systems:
containing 1:
```

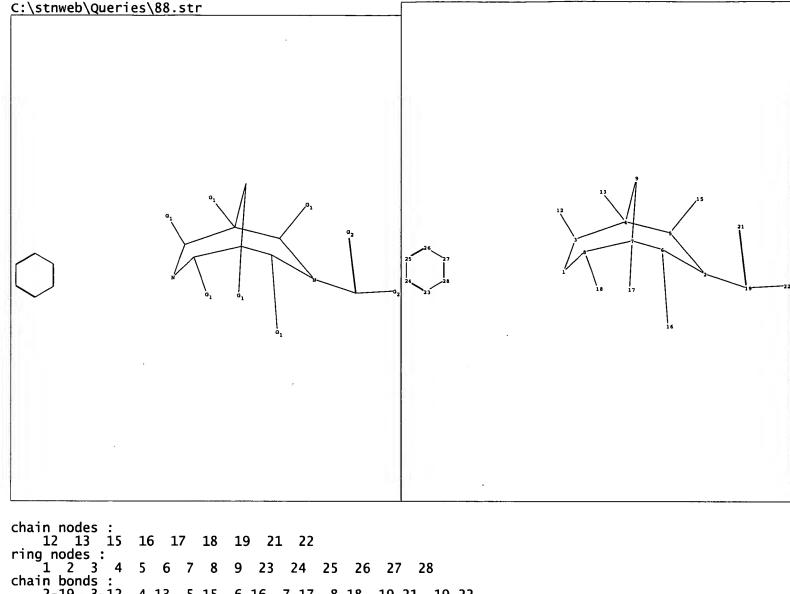
G1:0,S

Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS 10:Atom 12:CLASS 13:CLASS 15:CLASS



```
ring nodes:
    1 2 3 4 5 6 7 8 9
ring bonds:
    1-3 1-8 2-5 2-6 3-4 4-5 4-9 6-7 7-8 7-9
exact/norm bonds:
    1-3 1-8 2-5 2-6 3-4 4-5 4-9 6-7 7-8 7-9
isolated ring systems:
    containing 1:
```

Match level: 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom



```
ring nodes:
    1 2 3 4 5 6 7 8 9 23 24 25 26 27 28

chain bonds:
    2-19 3-12 4-13 5-15 6-16 7-17 8-18 19-21 19-22

ring bonds:
    1-3 1-8 2-5 2-6 3-4 4-5 4-9 6-7 7-8 7-9 23-24 23-28 24-25 25-26 26-27 27-28

exact/norm bonds:
    1-3 1-8 2-5 2-6 2-19 3-4 3-12 4-5 4-9 4-13 5-15 6-7 6-16 7-8 7-9 7-17 8-18
    19-21 19-22

normalized bonds:
    23-24 23-28 24-25 25-26 26-27 27-28

isolated ring systems:
    containing 1: 23:
```

G1:Ak,H G2:O,S

Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 12:CLASS 13:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 21:CLASS 22:CLASS 23:Atom 24:Atom 25:Atom 26:Atom 28:Atom